

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOLVENT CONTAMINATED WIPERS MANAGEMENT

1. **ISSUE DESCRIPTION.** Solvents regulated under Maine's hazardous waste management laws pose health threats to people and our environment when improperly stored or disposed of. It is the Maine Department of Environmental Protection's (DEP) goal to encourage the elimination of chlorinated solvents by seeking to reduce use by 80%, from a base year of 1999, by the year 2010 through the application of pollution prevention measures. The contribution of wipers¹ contaminated with chlorinated solvents to the waste stream is a concern for the DEP. Generators of solvent-containing wipers have alternatives that should be continuously evaluated.
2. **INTRODUCTION.** The DEP provides the following waste management guidance for wipers containing solvents having waste codes F001, F002, F003, F004 and F005 (F-listed), as listed in Maine's *Identification of Hazardous Wastes* rule, 06-096 CMR 850.3(C) (as amended July 20, 2004). These F-listed solvents will be referred to generically as "solvents."

This guidance is issued pending regulatory guidance and decisions on an exemption request to the United States Environmental Protection Agency (EPA) from a variety of states and regulated entities that seek an interpretation on the applicability of the so called "mixture rule" to solvent-containing wipers. DEP has received a similar request. The applicability of RCRA to these wipers is at issue because the law requires management as hazardous waste of any material mixed with another that, by definition, is hazardous waste. Since no *de minimus* level of contamination is defined in federal law, RCRA management requirements have historically been applied to solvent-containing wipers. While a determination by EPA is pending on this exemption, EPA deferred to its regional offices and states, allowing states leeway to formulate guidance on contaminated wipers.
3. **APPLICABILITY.** This guidance applies to all generators of hazardous waste, as defined in Maine's *Standards for Generators of Hazardous Waste* rule, 06-096 CMR 851.3(C).
4. **POLLUTION PREVENTION ANALYSIS.** Prior to implementing any wiper program under the terms and conditions of this guidance, generators of F-listed solvent waste streams are required to have documentation that applies to the site specifying that the following pollution prevention options have been examined to the maximum extent possible and have documented that even after employing these options, the F-listed solvent could not be eliminated or substituted.² The options are (1) physical methods to clean including but not limited to brushing, vacuuming, and dry wiping, (2) use of alternative non-hazardous chemicals including steam or water, and (3) alternative non-F-listed chemicals. The DEP's Office of Innovation and Assistance (207-287-7100) will provide technical assistance regarding alternative processes and information on the availability and effectiveness of a variety of non-toxic solvent alternatives that are currently available. Avoiding use of F-listed solvents and the gen-

¹ Although "wipers" refers specifically to shop towels, rags and disposable wipes used in commercial and industrial settings, other non-saturated textiles (e.g., uniforms, floor mats) are subject to this guidance.

² If the pollution prevention options for solvents have been addressed by the generator under TURA, the documentation required by this guidance may be maintained in the generator's TURA pollution prevention plan.

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eration of hazardous waste provides multiple benefits, often including lowering costs and reducing waste management requirements and disposal liability.

5. **ALTERNATIVE MANAGEMENT OPTIONS.** Through this guidance, DEP is allowing alternative management options for specific hazardous waste solvent-containing wipers to promote pollution prevention, reuse and, if necessary, an alternative environmentally responsible disposal method. As such, F-listed solvent-containing wipers in a non-saturated condition that are managed consistent with the practices described in this guidance will be regulated as nonhazardous waste. Failure to follow the terms and conditions of this guidance document will result in a generator being subject to all applicable provisions of Maine Law, including, but not limited to, the Maine Hazardous Waste Management Rules, 06-096 CMR 850-857.
6. **ALTERNATIVE WIPER STANDARDS.** All of the following standards must be met in order for a generator to use the alternative management options in this guidance.
 - A. **WIPER SATURATION.** The alternative standards established in this guidance apply to only solvent-containing wipers that are “non-saturated”. The determination as to whether wipers are non-saturated shall be made using the “one-drop” test. This determination shall be made by the generator by wringing the wipers out by hand or some other mechanical extraction method. As long as one drop of solvent flows from a wiper when subjected to this test, that wiper is saturated and therefore a hazardous waste; hand wringing or mechanical extraction may be repeated until the wiper passes the one-drop criterion. Intentional air-drying of saturated wipers to achieve the one-drop criterion is not allowable. Wipers placed in any container that has visible liquid at the bottom of the storage container prescribed in this guidance shall not be removed from the generator's facility as non-saturated wipers until those wipers are hand wrung or mechanically extracted by the generator and the wipers pass the one drop criterion. For the purposes of this guidance, neither hand wringing nor any mechanical extraction method applied to solvent-containing wipers constitutes treatment of a hazardous waste.
 - 1) **SATURATED WIPERS.** Solvent-containing wipers that become waste must be managed as a hazardous waste according to all applicable provisions in the Maine Hazardous Waste Management Rules, 06-096 CMR 850-857, until non-saturated and stored under this guidance.
 - 2) **EXTRACTION PROCESS.** Any physical or mechanical extraction must be performed in compliance with State and federal OSHA requirements, including use of any required personal protective equipment and procedures for handling flammable materials and in compliance with all applicable fire codes, does not require a license for treatment of hazardous waste. Any mechanical extraction of solvents performed as a result of this guidance must also be done in accordance with the manufacturer specifications.

Any extraction process must immediately collect all drainage from the wipers in accordance with the Maine Hazardous Waste Management Rules, 06-096 CMR 850-857. Wipers not contaminated with solvents mixed together with solvent-containing wipers for batch extraction or storage must be managed in accordance with this guidance.

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Reuse of drainage without further treatment for an original intended purpose may occur within ninety (90) days of generation. Any drainage not suitable for an original intended purpose must be managed as a hazardous waste.

- B. ON-SITE WIPER MANAGEMENT.** Immediately upon becoming non-saturated under this guidance, wipers must be placed in storage, in closed leak proof containers or closed clear plastic bags that eliminate solvent evaporation when closed, minimize occupational exposure when being loaded, and minimize susceptibility to spontaneous heating while still meeting applicable fire codes. In addition, the containment system must otherwise facilitate visual inspection for liquids. The container or clear plastic bag must have labels identifying the contents being accumulated and stored, and be marked with the date the container or bag becomes full.

For on-site laundering, non-saturated wipers must be laundered within 90 days of the date that a container or bag becomes full. For off-site laundering, generators must arrange to have non-saturated wipers picked up and transported from the generator's facility within 90 days of the date that a container or bag becomes full. The wipers must be handled to meet all applicable health and safety requirements prior to laundering. The generator must provide specific training or written guidance on the proper handling of wipers being managed for conforming to this guidance. The generator must maintain solvent wiper information sufficient for reporting in an annual hazardous waste generator report (See attached reporting form).

- C. CLEANING AND INCINERATION.** As an alternative to disposal as a hazardous waste, non-saturated wipers managed under this guidance may be either laundered at a properly licensed laundry facility or laundered at the generator's own on-site facility that discharges in accordance with a permit issued through the Maine Pollutant Discharge Elimination System (MEPDES) or if disposable paper wipers are used, incinerated at a generator's on-site boiler that operates under an Air Emission License. Failure to determine the appropriate condition of wipers, as described in the guidance, or licensing status of a facility, will result in a generator, transporter, and laundering facility being subject to all applicable enforcement provisions in Maine law.

- 1) **OFF-SITE LAUNDERING.** Any off-site wiper cleaning performed under this guidance must be done by an industrial laundry³. The facility must discharge to a Publicly Owned Treatment Work (POTW) with an approved pretreatment program, as defined by Maine's *Pretreatment Program* rules, 06-096 CMR 528. Discharges from wiper laundering may not commence until authorized by the POTW or DEP under an agreement that includes specific approval for the discharge volume and characteristics associated with its solvent-containing wipers laundering service.

The industrial laundry processing non-saturated wipers under this guidance must process all wipers prior to laundering by mechanical means such as wringing, compacting or centrifuging. All drainage from a mechanical means, must be managed and disposed of in accordance with the Maine Hazardous Waste Management Rules, 06-096 CMR 850-857. Any sludge generated from laundering must be managed in

³ For the purposes of this guidance, an "industrial laundry" is defined as a commercial, stand alone facility primarily engaged in laundering uniforms, wipers, mats and linens that may be rented or leased from that facility.

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accordance with its status after being tested, i.e. pursuant to Maine's Hazardous Waste Management Rules, 06-096 CMR 850-857 or Maine's Solid Waste Management Rules, 06-096 CMR 400-418. Sludge generated from laundering of non-saturated wipers managed under these alternative management standards shall not be deemed hazardous waste solely because of the contained-in/derived from policy.

- 2) **ON-SITE LAUNDERING.** A generator laundering non-saturated wipers under this guidance at the generator's own on-site facility must discharge under an MEPDES permit that specifically recognizes the operation of the non-saturated wipers laundering operation.

Any on-site laundry accepting non-saturated wipers under this guidance must process all wipers prior to laundering by mechanical means such as wringing, compacting or centrifuging. All drainage from a mechanical means must be managed and disposed of in accordance with the Maine Hazardous Waste Management Rules, 06-096 CMR 850-857. Any sludge generated from laundering must be managed in accordance with its status after being tested, i.e. pursuant to Maine's Hazardous Waste Management Rules, 06-096 CMR 850-857, or Maine's Solid Waste Management Rules, 06-096 CMR 400-418. Sludge generated from laundering of non-saturated wipers managed under these alternative management standards shall not be deemed hazardous waste solely because of the contained-in/derived from policy.

- 3) **INCINERATION.** The incineration of non-saturated disposable paper wipers managed in accordance with this guidance must be specifically licensed in a facility Air Emission License by DEP. The incineration facility must have a combustion unit rated at greater than 100,000,000 Btu/hr, and operate with particulate controls. An application for minor revisions of an existing license, if not already specified as an approved fuel, is to be submitted to the Maine DEP Bureau of Air Quality. The facility must manage any resulting ash in accordance with applicable Maine hazardous Waste Management Rules, 06-096 CMR 850-857 and Solid Waste Management Rules, 06-096 CMR 400-418. A facility with a boiler of less than 100,000,000 Btu/hr but greater than 25,000,000 Btu/hr may apply for a minor revision of their existing Air Emission License on a case-by-case basis from the Maine DEP Bureau of Air Quality. The incineration facility may not be a cast iron or fire tubed boiler or rated at less than 25,000,000 Btu/hr. The incineration of solvent-contaminated wipers is limited to disposable paper wipers only.

D. OFF-SITE SHIPMENTS. Wipers moved off-site for laundering must be transported in the same closed container or closed clear plastic bag used for accumulation and storage on-site and in accordance with applicable USDOT requirements.

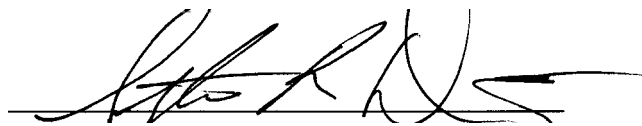
7. **HAZARDOUS WASTE CHARACTERISTICS.** Non-saturated solvent-containing wipers testing as hazardous for any reason other than contamination with an F-listed solvent must be managed as hazardous waste. Generators of wipers that have utilized a D001 solvent are subject to the same one-drop criterion and the "no-liquids" in the bottom of the container standard, as is specified in this guidance for F-listed solvents, to achieve a non-saturated condition. Non-

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saturated D001 solvent-containing wipers will not meet the ignitability characteristic of a hazardous waste.

8. **HAZARDOUS WASTE SPILLS.** Any materials, including wipers, used to clean up a solvent spill or hazardous waste of any kind or used in a manner other than for its original purpose or used to clean up excess hazardous waste or contaminated with any hazardous waste other than the F001-F005 listed solvents, must be managed as hazardous waste. Liquid solvent may not be poured, dumped or added to wipers to avoid regulation as hazardous waste.
9. **EXPIRATION.** Issuance of this guidance is completely discretionary. This guidance does not constitute a rule. DEP will continue to evaluate the need for rulemaking and regulatory guidance in this area. This guidance will expire upon the effective date of a rule or statute that supersedes it, or when DEP provides subsequent guidance, or terminates this guidance. This guidance may also be subject to change based on EPA revisions to the federal mixture rule.

Approved for implementation beginning this 31st day of March, 2005

A handwritten signature in black ink, appearing to read 'Stephen K. Davis', is written over a horizontal line.

Stephen K. Davis, P.G.
Director
Bureau of Remediation and Waste Management

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Instructions for Completing the Solvent-Contaminated Wipes Form

The State of Maine Department of Environmental Protection adopted a Solvent-Contaminated Wipes Policy ("Policy") on April 19, 2005. This Policy specifies that Solvent-Contaminated Wipes which are managed pursuant to the Policy must be reported in the Annual Hazardous Waste Activities Report. This information will be used to assess the quantities of wipes, and the trends and methods used by generators for managing, recycling, or disposing of Solvent-Contaminated Wipes. This Solvent-Contaminated Reporting Form is designed to collect this information.

Please fill in the site name and EPA ID number of the site. Provide the quantity of solvent-contaminated wipes that were generated, the quantity of solvent extracted from wipes, and shipped for laundering, or laundered on-site in 2006. Please provide the name and site address of the laundry that received your solvent-contaminated wipes. Please identify the receiving location by type (i.e. laundry). Submit the Solvent-Contaminated Wipes Reporting Form along with the rest of the 2006 Hazardous Waste Report.

If you have any questions about completing the Solvent-Contaminated Reporting Form, or if you want to receive information regarding the Solvent-Contaminated Wipe Guidance, please contact the departments Hazardous Waste Staff at 207-287-2651.

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	Pounds	Or	# of Containers (specify container size in gallons)
Quantity of Solvent-Contaminated Wipes Generated in 2006			
Quantity of Solvent Extracted			
Quantity of Solvent-Contaminated Wipes Shipped in 2006 to Laundry			
Quantity of Solvent-Contaminated Wipes Laundered On-site in 2006 (non-septic system sites only)			
	Laundry Name / Address		
Name and address of receiving location (i.e. Laundry, specify type)			